

# AUTOMATE™

## Modular Curtain Motor



**MT01-2101-069002**



**433 MHZ  
BI-DIRECTIONAL**



**ELECTRONIC  
LIMIT**



**FAVORITE  
POSITION**



**LEVEL  
CONTROL**



**SOFT TOUCH**



**QUIET  
OPERATION**



**SELECTABLE  
RPM**

AUTOMATE™ | ARC™ Curtain motor is compatible with popular drapery track systems for easy incorporation of curtains into the ARC motorized platform. The Soft Touch feature enables manual operation when needed.

The AUTOMATE modular curtain motor now offers the option to power the motor with a battery or continuous AC.

### FEATURES:

- Electronic Torque sensing "Auto-set" Limits
- 433 MHz Bi-Directional RF Communication
- Leveling Control
- Inverted or Standard Mount
- Favorite Position
- Soft start / stop
- AC or Battery powered option
- Soft touch control
- Speed Control
- Top exit option for power cord

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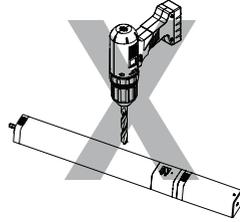
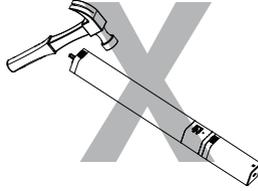
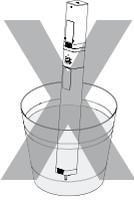
# CONTENTS

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# SAFETY INSTRUCTIONS

## WARNING: Important safety instructions to be read before installation.

Incorrect installation can lead to serious injury and will void manufacturer's liability and warranty.



## CAUTION

- Do not expose to moisture or extreme temperatures.
- Do not allow children to play with this device.
- Use or modification outside the scope of this instruction manual will void warranty.
- Installation and programming to be performed by a suitably qualified installer.
- For use within curtains and drapes.
- Use only Rollease Acmeda hardware.
- Before installation, remove any unnecessary cords and disable any equipment not needed for powered operation.
- Ensure torque and operating time is compatible with end application.
- Do not expose the motor to water or install in humid or damp environments.
- Motor is to be installed in vertical application only.
- Do not drill into motor body.
- The routing of cable through walls shall be protected by isolating bushes or grommets.
- Ensure power cable is clear and protected from moving parts.
- If cable or power connector is damaged do not use.
- Ensure all mechanical connections are secure.

## Important safety instructions to be read prior to operation.

- It is important for the safety of persons to follow the enclosed instructions. Save these instructions for future reference.
- Persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge should not be allowed to use this product.
- Keep remote controls away from children.
- Frequently inspect for improper operation. Do not use if repair or adjustment is necessary.
- Keep motor away from acid and alkali.
- Keep clear when in operation.



Do not dispose of in general waste.



# 1 CURTAIN MOTOR SPECIFICATIONS

MODULAR CURTAIN MOTOR SPECIFICATIONS				
Code	MT01-2101-069002	MT03-0305-069004	MT03-0305-069005	MT03-0305-069006
Description	Modular Curtain Motor	Battery Module	AC Module 10' Cord + Plug	AC Module 30' Cord
Region	AU / EU / US	AU / EU / US	US	US
Power Cable Length	-		3m [ 10' ]	9.1m [ 30' ]
Voltage Output	-	14.4V DC	18V DC	
Voltage Input	15V DC	-	110V AC 60 Hz	
Capacity	-	2600 mAh	-	
Running Time	12 min *	-		
Current	1.3 A	-	2.0 A	
Consumption	20 W	37.44 Wh	36 W	
Charge Voltage	-	5V DC (Micro USB)	-	-
Protection Class	IP40			
Torque	1.2 Nm	-		
Speed	80   100   120	-		
Frequency	433.92 MHz	-		
Sound Level	44 dB	-		
Weight	0.83 Kg	0.27 Kg	0.32 Kg	0.64 Kg
	1.83 lbs	0.60 lbs	0.71 lbs	1.41 lbs
RF Protocol	ARC	-		
RF Modulation	FSK	-		
RF Signal Range	15m [ 49 ft ]	-		
Limit Switch Type	Electronic	-		
Temp Working Range	0 - 60 °C			
	32 - 140 °F			
Limit Range	∞	-		
Insulation Class	Class A			
Life Cycle Testing	10,000 Cycles   50 Kg   Upto 11m Track			
Charge Time	-	8 hrs @ 2A	-	-
Solar Panel Gen2	-	5V USB Compatible	-	-
Notes				
Motor/Battery protection activates when battery voltage reaches 13.5V DC (motor stops when battery is flat)				
120 RPM is Default speed in operation   80 RPM is default speed during limit setting				
Charge time is based on typical 5V / 2A charge rate of fully discharged battery, actual time may vary between batteries				

# 2 TRACK & BELT DEDUCTIONS

MODULAR CURTAIN MOTOR - TRACK & BELT DEDUCTIONS					
TYPE	DRIVE UNIT	RETURN UNIT	ONE WAY & CENTRE CLOSE		
			TRACK LENGTH	BELT LENGTH	BELT CHECK LENGTH
S TRACK	MT03-0401-xxx004 (x2)		OL - 118mm (4.65")	(OL x2) + 6mm (0.24")	120mm (4.72")
	MT03-0401-xxx004	MT03-0401-xxx013	OL - 92mm (3.62")	(OL x2) + 2mm (0.08")	
B TRACK	MT03-0401-xxx014 (x2)		OL - 120mm (4.72")	(OL x2) + 8mm (0.31")	123mm (4.84")
	MT03-0401-xxx014	Somfy Return Pulley	OL - 90mm (3.54")	(OL x2) + 6mm (0.24")	

## NOTES :

- Above figures are for STRAIGHT TRACKS only
- Deductions are constant across centre close and one way configurations

### 3 WIRING (AC MODULES)

#### 3.1 US Motor (120V)

Disconnect the mains power supply.

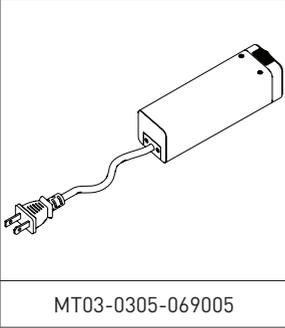
Connect the motor according to the information in the table below.



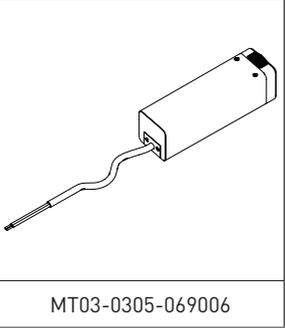
Ensure cable is kept clear of fabric.



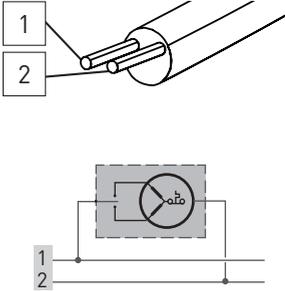
Power OFF



MT03-0305-069005



MT03-0305-069006



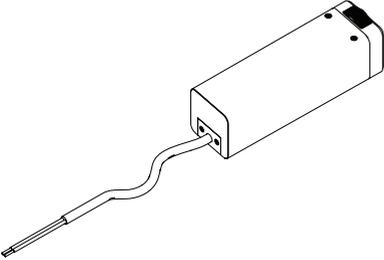
MOTOR	POWER	NEUTRAL	LIVE	EARTH	POWER CORD LENGTH
MT03-0305-069005	120V AC / 60Hz	White	Black	N/A	10 ft (3m)
MT03-0305-069006					30 ft (9.1m)

#### 3.2 US Motors (120V) + Field Plug

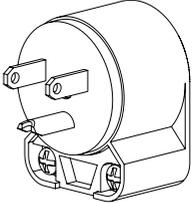


Connect the motor according to the information in the table below.

Ensure cable is kept clear of fabric.



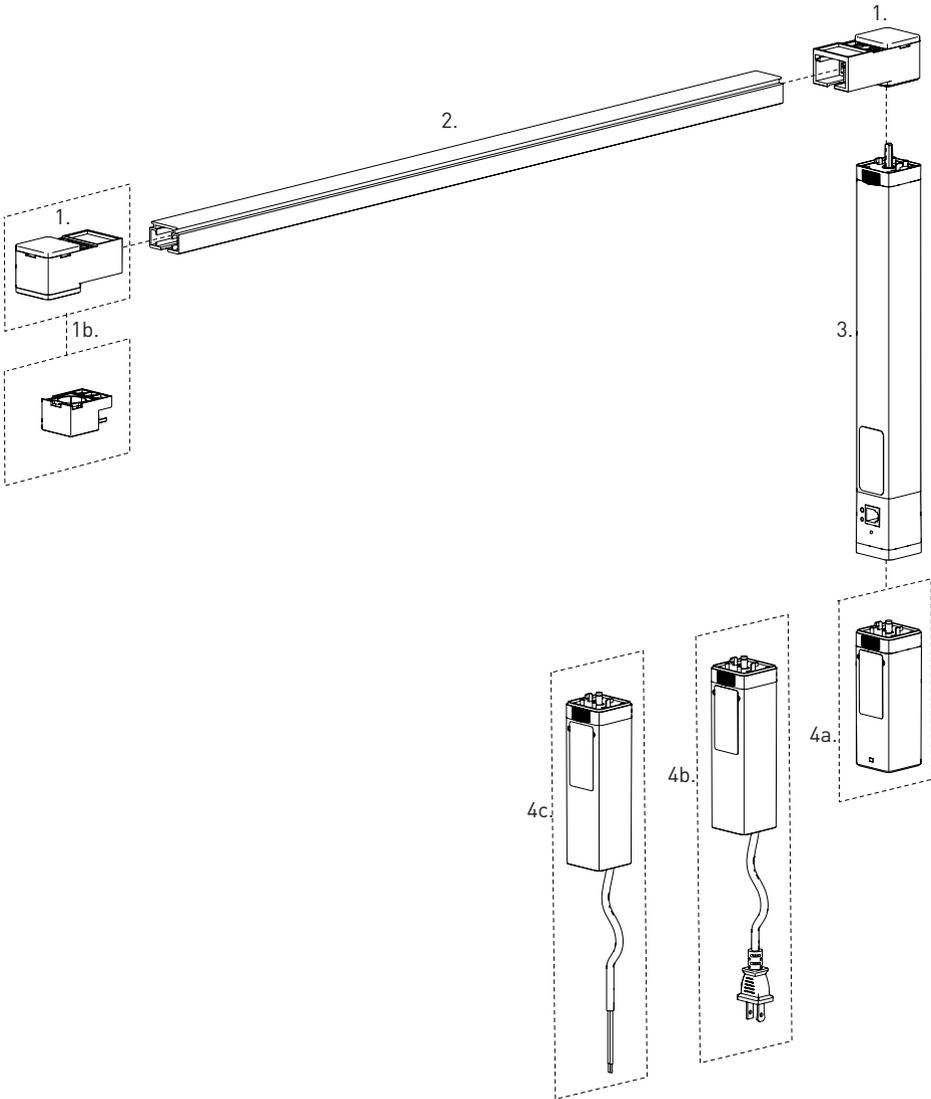
Field Plug



FIELD PLUG	POWER	NEUTRAL	LIVE	EARTH
MTAC- FIELDPLUG	120V AC / 60Hz	White	Black	Green

# 4 ASSEMBLY

## GENERAL SCHEMATIC



## SYSTEM INDEX:

- |                           |                          |                                   |
|---------------------------|--------------------------|-----------------------------------|
| 1. Motor End Pulley       | 3. Modular Curtain Motor | 4c. AC Power Adapter (Long Cable) |
| 1b. Overlap Return Pulley | 4a. Battery              |                                   |
| 2. Curtain Track          | 4b. AC Power Adapter     |                                   |

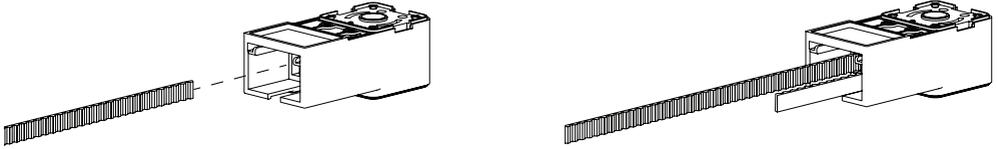
## 4 ASSEMBLY

The Automate Modular Curtain Motor works with most major drapery track systems. Follow the below instructions to simply retrofit with the Drive Pulley\* to an existing track \*Drive Pulley Available Separately

**NOTE:** DISASSEMBLE EXISTING DRAPERY TRACK PRIOR TO FOLLOWING ASSEMBLY STEPS

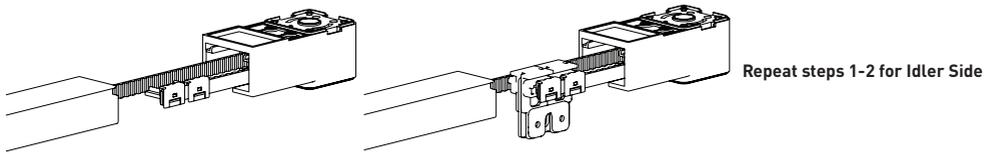
### STEP 1

Install drapery drive belt into new drive housing.



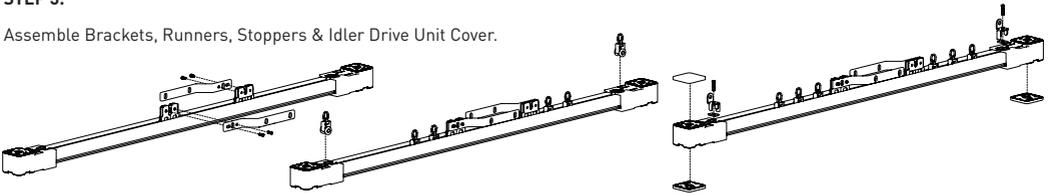
### STEP 2:

Assemble drive belt attachments and attach drive housing to track.



### STEP 3:

Assemble Brackets, Runners, Stoppers & Idler Drive Unit Cover.

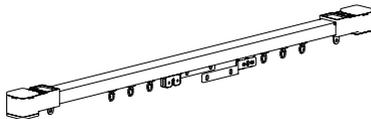


### STEP 4:

Assemble Curtain Motor to drive housing.

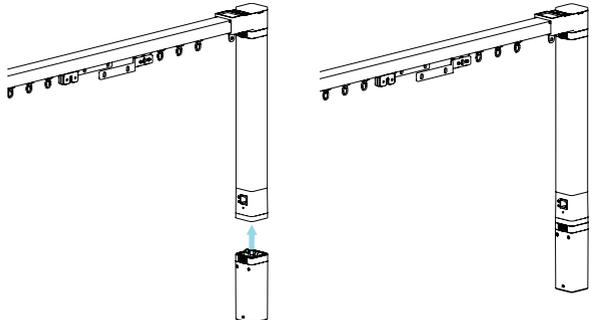
Ensure Fixing Pin is engaged securely and motor is secured to housing.

1. Install Track Assembly



2. Attach Motor to drive pulley

3. Attach Battery to motor (Or AC Module)



**NOTE:** AC Module power cable may be shortened and/or routed along the motor body and held in place with cable ties. This requires using a field installed plug to replace the motor grounding plug.

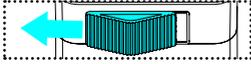
## 4 ASSEMBLY

### 4.1 Attaching and removing the motor

#### ATTACHING THE MOTOR TO DRIVE PULLEY

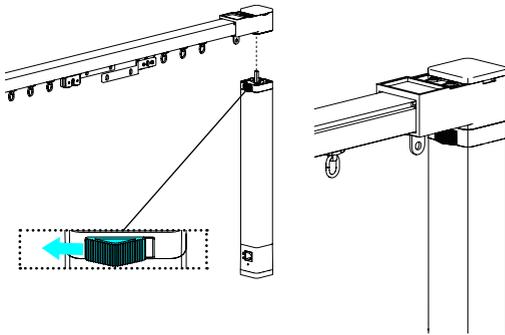
##### STEP 1

Slide the lock button fully left against the spring pressure force



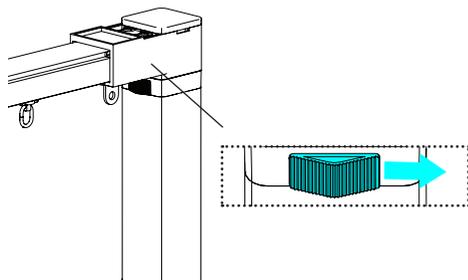
##### STEP 2

Align and engage the Motor with the Drive Pulley as shown.



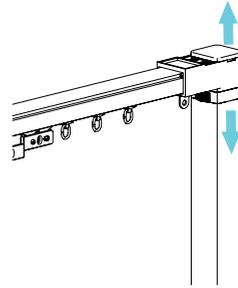
##### STEP 3

Push to Lock Button fully to the right to ensure they two are securely attached.



##### STEP 4

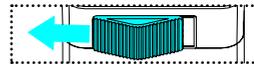
CHECK the Motor and Pulley are securely attached by trying to pull them apart.



#### REMOVING THE MOTOR FROM THE DRIVE PULLEY

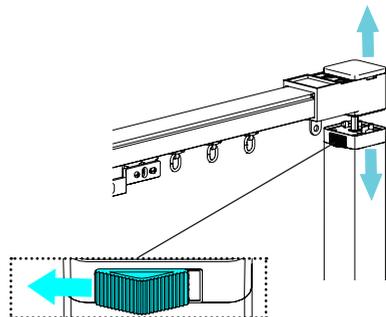
##### STEP 1

Slide the lock button fully left against the spring pressure force



##### STEP 2

Pull the Motor away from the Drive Pulley



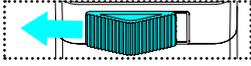
## 4 ASSEMBLY

### 4.2 Attaching and removing the battery or AC module

#### ATTACHING THE BATTERY OR AC MODULE TO THE MOTOR

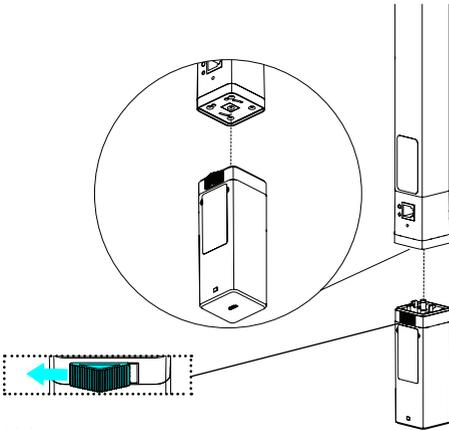
##### STEP 1

Slide the lock button fully left against the spring pressure force



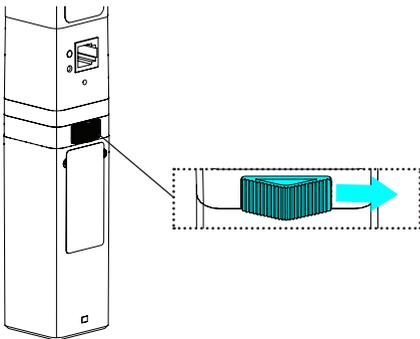
##### STEP 2

Align and engage the Battery or AC Module with the Motor as shown.



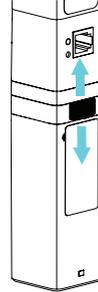
##### STEP 3

Push to Lock Button fully to the right to ensure they two are securely attached.



##### STEP 4

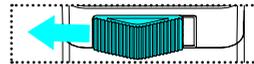
CHECK the Motor and Battery (or AC Module) are securely attached by trying to pull them apart.



#### REMOVING THE BATTERY OR AC MODULE FROM THE MOTOR

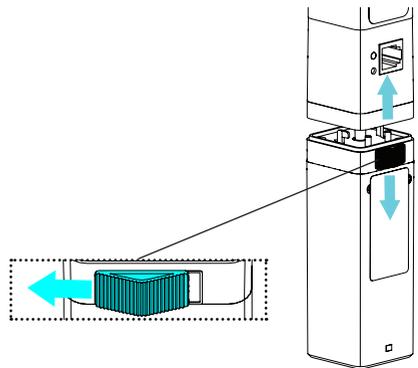
##### STEP 1

Slide the lock button fully left against the spring pressure force



##### STEP 2

Pull the battery or AC module away from the motor



## 5 CHARGING

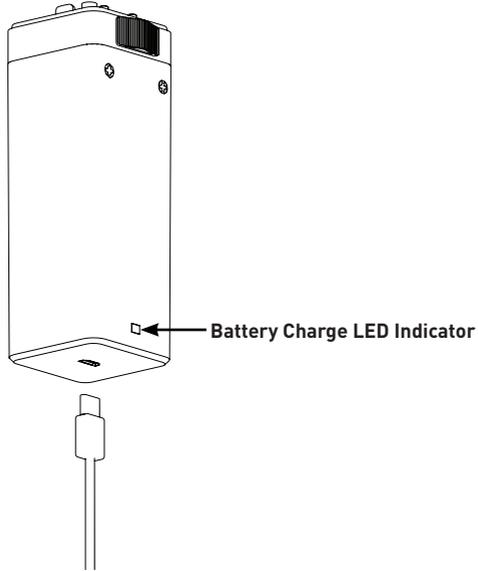
**Important:**

Before first use, charge battery fully until LED indicator turns Green (Solid)

Solid Red = Charging

Solid Green = Fully Charged

Charge battery using 5V Micro USB



# 6 P1 BUTTON FUNCTIONS

## 6.1 Motor State Test

This table describes the function of a short **P1** button press/release (<2 seconds) depending on current motor configuration.

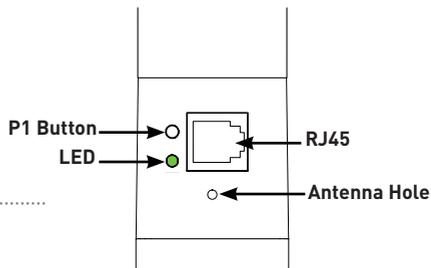
P1 Press	Condition	Function Achieved	Visual Feedback	Audible Feedback	Function Described
Short Press then Release (<2 sec)	If limit is NOT set	None	No Action	None	No Action
	If limits are set	Operational control of motor, run to limit. Stop if running	Motor runs	None	Operational control of motor after pairing and limit setting is completed first time
	If motor is in "Sleep Mode" & limits are set (Refer to Sec.10)	Wake and control	Motor wakes and runs in a direction	None	Motor is restored from Sleep mode and RF control is active

Hold **P1** button on motor head.

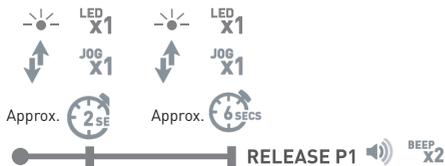
### Activate Pairing Mode



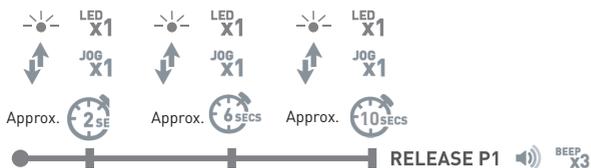
● GREEN LED



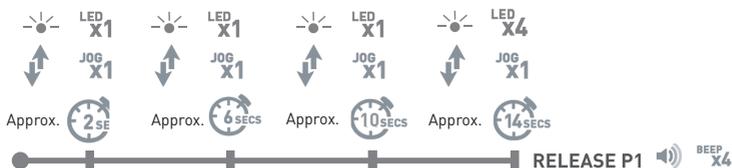
### Sleep Mode



### Enter Setting Mode



### Reset To Factory Settings



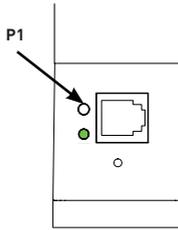
# 7 INITIAL SET UP

## 7.1 Pair motor with controller

Select channel on controller.



Hold **P1** button on motor head.



Hold **STOP** on controller.



### IMPORTANT

Consult user manual for your controller for information on selecting channel.

Motor Response



Motor Response



### Motor is now in setup mode and ready for setting limits

Notes:

- When limits are not set only one remote channel can be paired with the motor
- When limits are set, up to ten channels can be paired with the motor

## 7.2 Check/ Change motor direction (initial set up)

To check travel direction of shade, press **UP** or **DOWN** on controller..



To reverse shade direction, hold both **UP** and **DOWN**.

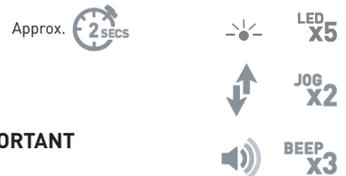
Until the motor responds.



**Quick Press** = Step

**Long Press** = Continuous Travel

Motor Response

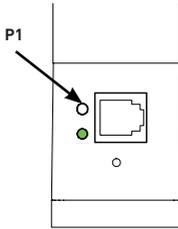


### IMPORTANT

Reversing motor direction using this method is only possible during initial set-up

## 7.2.1 Check/ Change motor direction (initial set up)

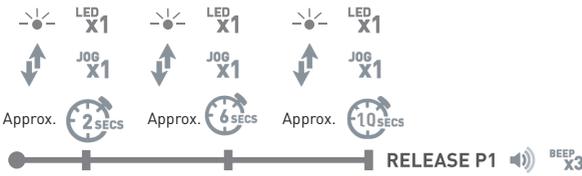
Press **P1** on Motor for 10 seconds to enter setting mode



To reverse direction, hold both **UP** and **DOWN**. Until the motor responds.



Motor Response



Note:

Changing motor direction after initial set up (with limits already set) will clear the limits. Open and close the curtain to re-set the limits automatically.

Motor Response



## 7.3 Auto Set Limits

The AUTOMATE Modular Curtain motor features automatic limit detection. Once the motor is attached to a fabricated, installed track, limits can be set with a few simple actions.

Press the **UP** or **DOWN** buttons on controller.  
Carrier will run to the end of the track.



When carrier has reached the end of the track, it will automatically set limit there.  
Repeat for opposite end.



Motor Response



### IMPORTANT

To verify limits were successfully set, press up or down to run to limit. Motor should now function with slow start/slow stop feature. After the limits are set, the motor will only move in the set limit range. If the motor encounters a new obstacle a maximum of THREE TIMES at the same position, the limit will automatically reset.

Note: If the motor encounters an obstacle, collision detection will stop the motor to prevent damage.

### Initial set-up is now complete

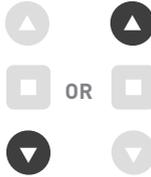
## 8 ADJUSTING LIMITS

### 8.1 Adjust open limit

Hold **UP** and **STOP** on controller.



Move curtain to the desired open position by pressing the **UP** or **DOWN** button.



To save desired open limit, hold **UP** and **STOP**.



Motor Response



Motor Response

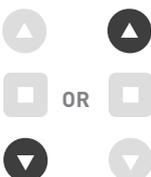


### 8.2 Adjust close limit

Hold **DOWN** and **STOP** on controller.



Move curtain to the desired closed position by pressing the **UP** or **DOWN** button.



To save desired close limit, hold **DOWN** and **STOP**.



Motor Response



Motor Response



Notes:

- Once in limit adjustment mode, button selection on the remote must be made within 2 minutes, if not, motor will exit adjustment mode.
- To exit limit adjustment mode without making changes, press **P1** or **P2** and limits will remain unchanged.

## 8.3 Delete limits

Press **P2** on controller



Press **DOWN** on controller



Press **P2** on controller



Motor Response



Motor Response



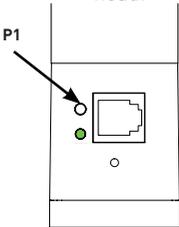
Motor Response



## 9 CONTROLLERS AND CHANNELS

### 9.1 Using motor P1 button

Hold **P1** button on motor head.



Motor Response



Hold **STOP** on controller to add or remove



Motor Response



## 9.2 Using existing controller to add a new controller or channel

**A**= Existing controller or channel (to keep)

**B**= Controller or channel to add or remove

Press **P2** on controller **A**



Press **P2** on controller **A**



Press **STOP** on the new controller to add it



Motor Response



Motor Response



Motor Response



**IMPORTANT**

Consult user manual for your controller or sensor

## 9.3 Using pre-existing controller to add or delete a controller or channel

**A**= Existing controller or channel (to keep)

**B**= Controller or channel to add or remove

Press **P2** on controller **A**



Press **P2** on controller **A**



Press **P2** on controller **B** to remove it



Motor Response



Motor Response



Motor Response



**IMPORTANT**

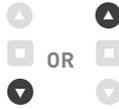
Consult user manual for your controller or sensor

## 10 FAVORITE POSITIONING

### 10.1 Set a favorite position

Move curtain to desired position by pressing the **UP** or **DOWN** button on the controller.

Move shade to the desired position by pressing the **UP** or **DOWN** button on the controller.



Press **P2** on controller.



Press **STOP** on controller.



Press **STOP** on controller.



Motor Response



Motor Response



Motor Response



### 10.2 Send to favorite position

Press **STOP** on controller.



### 10.3 Delete favorite position

Press **P2** on controller.



Press **STOP** on controller.



Press **STOP** on controller.



Motor Response



Motor Response



Motor Response

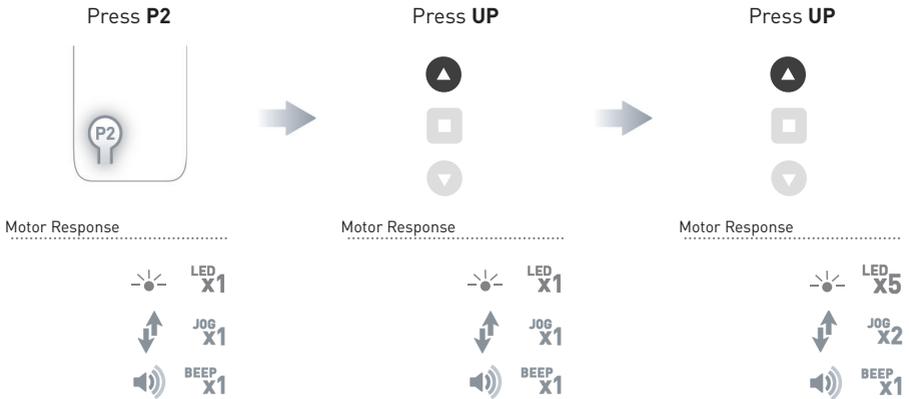


# 11 ADJUST MOTOR SPEED

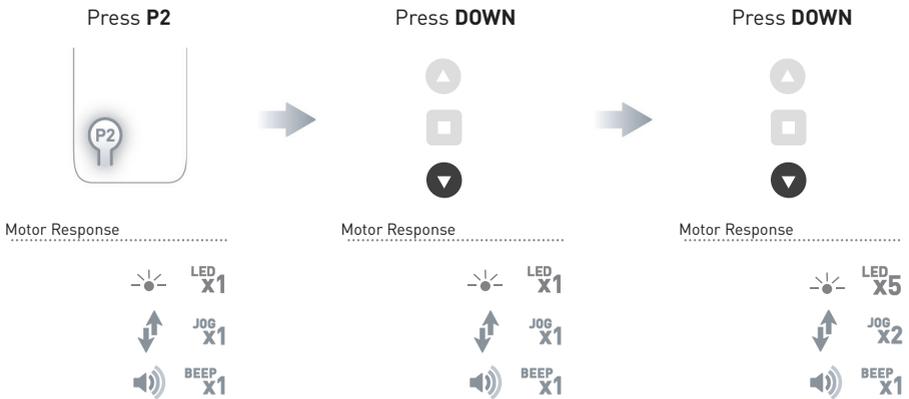
Notes:

- There are three speed settings (80,100 & 120 RPM).
- With limits set, the default speed is MAXIMUM speed.
- If motor responds to the inputs below with two quick beeps, the speed setting is already at the maximum or minimum speed trying to be set.
- When motor limits are not set, default speed is minimum.

## 11.1 Increase motor speed



## 11.2 Decrease motor speed

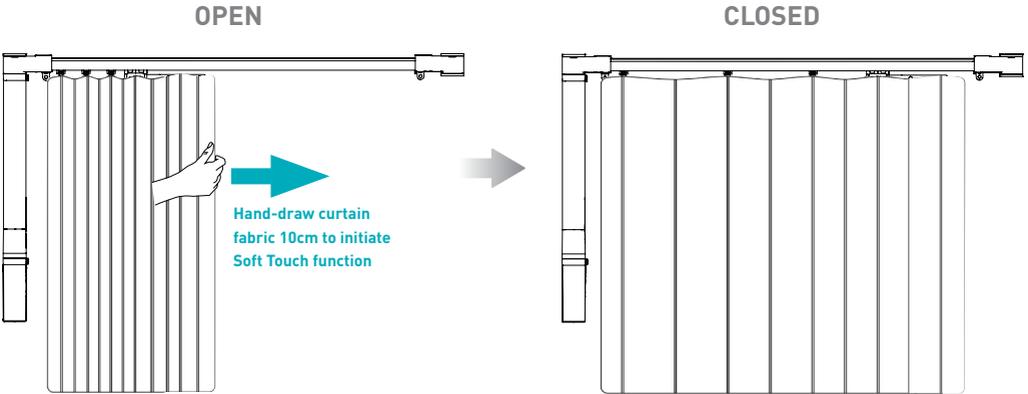


## 12 SOFT TOUCH FUNCTION

The AUTOMATE Curtain Motor exhibits a built-in function which enables the motor to be initiated by hand-draw. When the fabric is displaced more than 10cm by hand-draw, the motor continues to move towards the drawn direction, until the limit is reached.

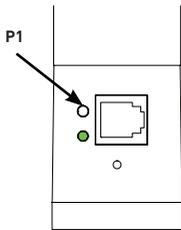
The Soft Touch Function can be toggled on and off by pressing the **P1** button for 10 seconds, followed by the **STOP** button.

### 12.1 Operating with Soft Touch Function



### 12.2 Turn soft touch function on/off

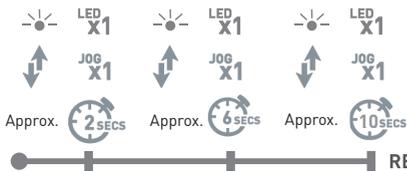
Continuously hold **P1** button on motor head for **10 seconds**



Press **STOP** on controller to switch soft touch function on or off.



Motor Response



Motor Response



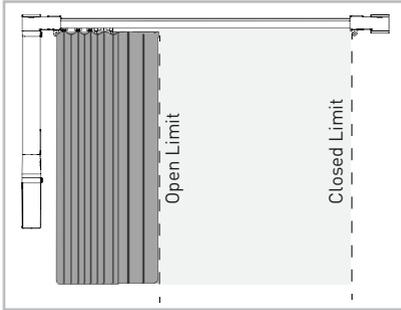
## 13 BATTERY CHECK FUNCTION

### 13.1 Send curtain to battery charge level

Hold **UP**

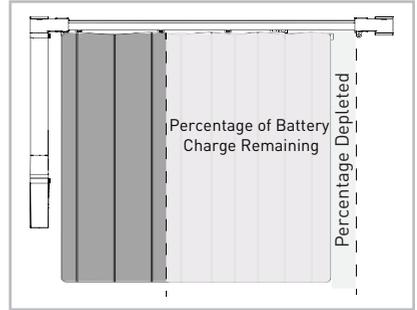


Motor Response.....



Hold **UP** for Approx. 5s

Curtain will close first if not already closed



Curtain then moves to percentage of battery charge remaining

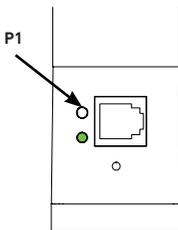
## 14 RS485 COMMUNICATION

### Notes:

- Default RS485 function is disabled.
- RS485 function is not available when motor is powered by the Battery.
- RS485 function is ONLY available when motor is powered by AC Module.
- Motors must be paired one at a time with control PC when multiple motors are to be connected on a network.

### 14.1 Enable RS485 communication

Continuously hold **P1** button on motor head for 2 seconds



Motor Response.....



Hold **UP** on controller for 5 seconds

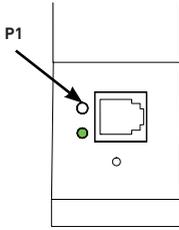


Motor Response.....



## 14.2 Disable RS485 communication

Continuously hold **P1** button on motor head for 2 seconds



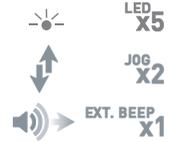
Motor Response



Hold **UP** on controller for 5 seconds



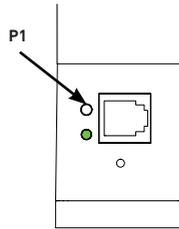
Motor Response



## 14.3 RS485 Failure

RS485 failure reminder when trying to turn on RS485 function of battery powered motor:

Continuously hold **P1** button on motor head for 2 seconds



Motor Response



Hold **UP** on controller for 5 seconds



Motor Response



## 15 SLEEP MODE

If multiple motors are grouped on a single channel, Sleep Mode may be used to put all but 1 motor to sleep, allowing programming of just the one motor that remains "Awake". See page 6 for detailed **P1** functions.

### 15.1 Enter Sleep Mode

#### Enter Sleep Mode

Sleep mode is utilized to prevent a motor from incorrect configuration during other motor setup.

Hold **P1** button on the motor head

Motor Response .....



#### Notes:

In sleep mode, the Soft Touch Function is available and operating the curtain via this method will not cause the motor to exit sleep mode.

### 15.2 Exit Sleep Mode

#### Exit Sleep Mode: Method 1

Exit sleep mode once the shade is ready.

Press and release **P1** button on the motor head

Motor Response .....

Motor will move in last default direction to limit position

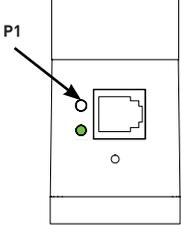
#### Exit Sleep Mode: Method 2

Remove power and then re-power the motor.

# 16 EXTERNAL LOW VOLTAGE SWITCH MODE

## 16.1 Two Button Spring Return Switch (Default Mode)

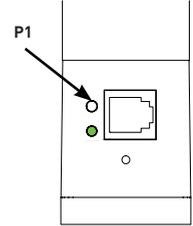
Press **P1** on motor for 10 seconds to enter setting mode



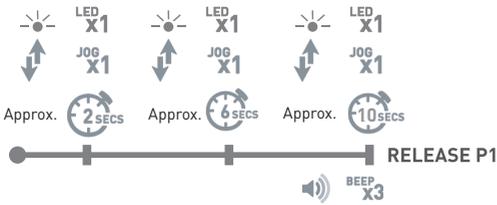
Press **P2** on controller



Press **P1** on motor for 2 seconds



Motor Response



Motor Response



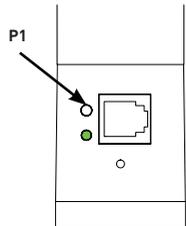
Motor Response



## 16.2 Three Button Spring Return Switch

Press **P1** on motor for 10 seconds to enter setting mode

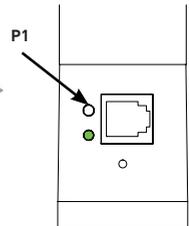
REPEAT 2X



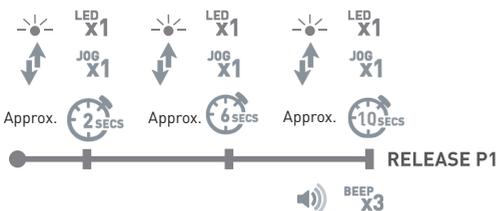
Press **P2** on controller



Press **P1** on motor for 2 seconds



Motor Response



Motor Response

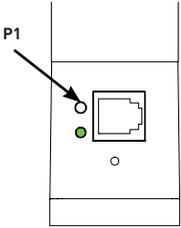


Motor Response



## 16.3 Single Button Spring Return Switch

Press **P1** on motor for 10 seconds to enter setting mode

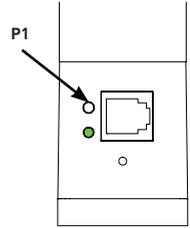


REPEAT 3X

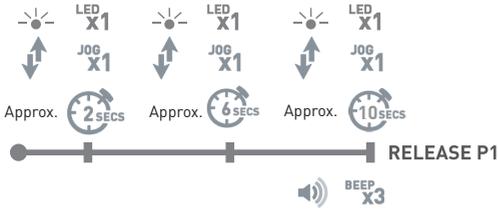
Press **P2** on controller



Press **P1** on motor for 2 seconds



Motor Response



Motor Response



Motor Response



# 17 TROUBLESHOOTING

Problem	Cause	Remedy
Motor is not responding	A / C power supply not plugged in.	Check motor to power cable connection and AC plug
	Insufficient charging from solar PV panel	Check connection and orientation of PV panel
	Transmitter battery is discharged	Replace battery
	Incorrect Wiring (AC Module power)	Check wiring of Field Plug if not factory fitted
	Radio interference/shielding	Ensure transmitter is positioned away from metal objects and the aerial on motor or receiver is kept straight and away from metal
	Receiver distance is too far from transmitter	Move transmitter to a closer position
	Charging failure	Connect battery to charger and check if LED indicates charging
Motor Beeps + Flashes x4 Times	Battery voltage is low	Recharge with a compatible charger
Cannot program a single Motor (multiple motors respond)	Multiple motors are paired to the same channel.	Always reserve an individual channel for programming functions
		SYSTEM BEST PRACTICE - Provide an extra 15 channel remote in your multi motor projects, that provides individual control for each motor for programming purposes
		Place all other motors into sleep mode (ref to section 15)

# NOTES

# NOTES

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# NOTES

A series of horizontal dotted lines for taking notes.

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